

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P475069

Luminaire Tested: **22CZ2-60VHE-RDP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475069
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-60VHE-RDP-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4124.5 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

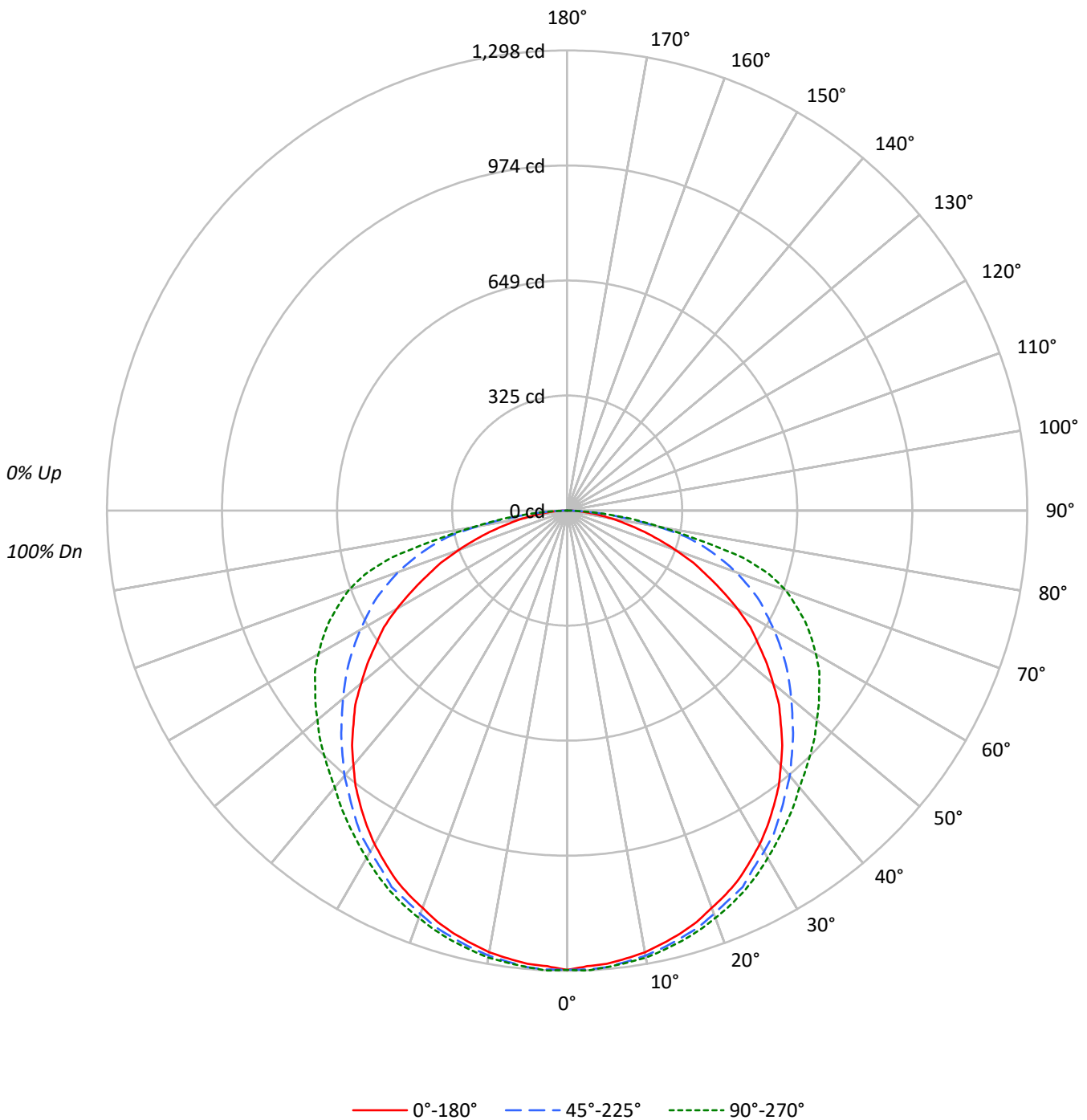
Input Watts (W): 42.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3486	3486	3486
5°	3467	3491	3491
10°	3457	3482	3499
15°	3440	3474	3499
20°	3415	3466	3502
25°	3405	3478	3513
30°	3375	3450	3517
35°	3339	3439	3539
40°	3294	3431	3581
45°	3245	3430	3694
50°	3175	3455	3848
55°	3089	3530	4071
60°	2989	3625	4360
65°	2782	3807	4715
70°	2555	3987	5157
75°	2242	4194	5332
80°	1929	3995	4186
85°	1686	2905	3183



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.6	3.0
10°-20°	351.9	8.5
20°-30°	536.8	13.0
30°-40°	655.5	15.9
40°-50°	700.9	17.0
50°-60°	676.5	16.4
60°-70°	582.3	14.1
70°-80°	394.0	9.6
80°-90°	104.0	2.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1011.3	24.5
0°-40°	1666.8	40.4
0°-60°	3044.1	73.8
0°-90°	4124.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4124.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1296	1296	1296	1296	1296	
5°	1283	1286	1292	1292	1292	122
15°	1235	1238	1247	1253	1256	348
25°	1147	1153	1171	1177	1183	528
35°	1016	1025	1047	1068	1077	636
45°	853	868	901	947	971	658
55°	658	680	752	828	868	590
65°	437	479	598	692	740	434
75°	216	285	403	485	513	231
85°	55	76	94	97	103	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1295.5	1295.5	1295.5	1295.5	1295.5
2.5°	1286.5	1289.5	1295.5	1295.5	1298.5
5°	1283.4	1286.5	1292.5	1292.5	1292.5
7.5°	1274.4	1277.4	1283.4	1286.5	1286.5
10°	1265.0	1268.4	1274.4	1277.4	1280.4
12.5°	1250.0	1253.0	1262.0	1268.4	1268.4
15°	1234.9	1237.9	1247.0	1253.0	1256.0
17.5°	1216.5	1222.8	1231.9	1237.9	1240.9
20°	1192.4	1198.4	1210.5	1219.8	1222.8
22.5°	1171.3	1177.3	1189.4	1198.4	1204.4
25°	1146.9	1152.9	1171.3	1177.3	1183.3
27.5°	1116.4	1122.7	1137.8	1149.9	1158.9
30°	1086.3	1092.3	1110.4	1125.8	1131.8
32.5°	1052.8	1061.8	1083.3	1095.3	1104.4
35°	1016.3	1025.4	1046.8	1067.9	1077.2
37.5°	980.1	989.2	1010.3	1037.7	1049.8
40°	937.6	949.7	976.8	1013.3	1019.3
42.5°	898.1	913.2	937.6	980.1	995.2
45°	852.6	867.7	901.2	946.7	970.8
47.5°	810.1	825.2	861.7	916.2	946.7
50°	758.5	779.7	825.2	889.1	919.2
52.5°	710.0	728.1	789.0	858.6	895.1
55°	658.5	679.6	752.5	828.2	867.7
57.5°	612.9	631.0	713.0	798.0	843.6
60°	555.3	579.5	673.5	764.6	810.1
62.5°	494.4	530.9	634.0	728.1	776.6
65°	436.9	479.4	597.9	691.6	740.5
67.5°	385.3	430.8	552.3	652.4	697.9
70°	324.7	382.3	506.8	603.9	655.4
72.5°	270.1	333.7	455.2	552.3	597.9
75°	215.6	285.2	403.4	485.4	512.8
77.5°	166.7	233.7	345.8	370.2	373.2
80°	124.5	185.1	257.8	260.8	270.1
82.5°	85.0	130.5	166.7	182.1	185.1
85°	54.6	76.0	94.1	97.1	103.1
87.5°	24.4	27.4	33.5	30.5	30.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)